

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	10/613,840	WELBOURNE, STEPHEN B.
	Examiner	Art Unit
	David J. Parsley	3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to applicant's amendment dated 4-24-05.
2.  The allowed claim(s) is/are 1,3,4,6,15,16,23-25 and 32-35.
3.  The drawings filed on 05 July 2003 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. James Welch on 6-22-05.

The application has been amended as follows:

In line 3 of the abstract, replace "said" with - -the- -.

Claim 1 is to read as follows:

Claim 1 A system for providing fluid to a cup, said cup, as presented in side elevation, having a bottom, a substantially open top and substantially vertically projecting sides, said system further comprising means for accepting fluid projecting through the bottom of said cup, and means for ejecting said fluid into said cup;

said means for accepting fluid being incorporated in a nipple housing which further comprises a rod means situated therewithin;

said system being distinguished in that it further comprises at least one section from the group consisting of:

a restriction element frame present at least partially within said cup and in substantially vertically projecting plane which substantially bisects said cup laterally as viewed from

thereabove, said rod means being projected in the plane of said restriction element, said restriction element frame comprising two sides angled and extending upwardly in opposite directions out of said cup, and a horizontal element disposed entirely outside said cup, extending between and coupling the two angled sides to form an inverted triangular shape enclosing an open space therebetween, said rod means extending outwardly from the cup and into the enclosed open space of the restriction element frame; and

an annular space present between said rod means and said nipple housing, said rod means being accessible from atop said cup and functionally incorporated into said means for accepting fluid such that movement of said rod means causes said means for accepting fluid to allow fluid to enter into said cup via said means for ejecting said fluid, said annular space between said nipple housing and said rod means being smaller at its top than it is therebeneath, said annular space having an unrestrained float therewithin, such that if fluid accumulates within said annular space, said unrestrained float freely rises in said annular space and serves to automatically restrict rod means motion, said unrestrained float having a central bore and said rod means extending entirely through said bore, said float having an upper end having a smaller diameter than that of a lower end of said float.

Claim 15 is to read as follows:

Claim 15      A system for providing fluid to a cup comprising;

    a cup;

    a nipple housing;

    a rod means;

means for accepting fluid;

a restriction element frame, said restriction element frame comprising two sides angled and extending upwardly in opposite directions out of said cup, and a horizontal element disposed entirely outside said cup, extending between and coupling the two angled sides to form an inverted triangular shape enclosing an open space therebetween, said rod means extending outwardly from the cup and into the enclosed open space of the restriction element frame,

said cup, as presented in side elevation, being substantially open at the top thereof, having substantially vertically projecting side(s), and having a bottom which is substantially closed except for an opening for receiving said nipple housing;

said nipple housing being substantially tubular in shape and being essentially vertically projected through the bottom of said cup;

said nipple housing further comprising at least first and second diameter reducing restrictions therewithin with the first thereof being positioned above the second thereof, below each of said first and second diameter reducing restrictions there being at least one seal means, said nipple housing further comprising at least one hole through the essentially vertical projection thereof at a vertical location below the vertical level of the top of said cup and above the vertical level of the bottom of said cup;

said means for accepting fluid being present in said nipple housing and being comprised of a hole, which hole is functionally sealed with a pressure operated back-flow preventing plug means until source fluid, provided externally, presents sufficient pressure on said pressure operated back-flow preventing plug means to effect entry through said hole;

said rod means being substantially of one diameter over the majority of its length, but having a substantially abrupt larger diameter near its lower aspect, said substantially abrupt larger diameter portion having upper and lower surfaces;

said rod means being positioned in said system for providing fluid to a cup such that it projects substantially vertically, upwardly out of said nipple housing through the seal means associated with the first restriction simultaneous with the upper surface of said rod means substantially abrupt larger diameter near its lower aspect, being in contact with the seal means associated with the second restriction;

such that in use source fluid is provided in contact with the back-flow preventing plug means at a sufficient pressure to cause said back-flow preventing plug means to allow said source fluid entry into said nipple housing, wherein it contacts the lower surface of said substantially abrupt larger diameter of the lower aspect of said rod means;

and further such that when said rod means is, by application of physical force to its upper end which projects through the seal associated with the first restriction in said nipple housing and out of said nipple housing, caused to project other than substantially vertically, and while said seal means associated with the first restriction continues to prevent substantially all fluid from flowing therepast,

said seal means associated with the second restriction is caused to receive and allow fluid to pass substantially vertically therethrough and thereafter be ejected from said at least one hole through the vertical projection of said nipple housing, said fluid being ejected in a substantially laterally oriented direction into said cup, there being no elements present therewithin to influence fluid ejection into said cup along a locus with a generally upward or downward component;

said system being distinguished in that, said restriction element frame is present at least partially within said cup in a plane which substantially bisects said cup as viewed from above, said rod means being projected substantially within the plane of said restriction element frame.

Claim 25 is to read as follows:

Claim 25 A system for providing fluid to a cup comprising,  
a cup;  
a nipple housing;  
a rod means;  
means for accepting fluid;  
a restriction element frame, said restriction element frame comprising two sides angled and extending upwardly in opposite directions out of said cup, and a horizontal element disposed entirely outside said cup, extending between and coupling the two angled sides to form an inverted triangular shape enclosing an open space therebetween, said rod means extending outwardly from the cup and into the enclosed open space of the restriction element frame,  
said nipple housing being located substantially within said cup and comprising a first structural element being secured into a second structural element from atop thereof, said second structural element is secured into a third structural element from atop thereof, a fourth structural element being secured into a fifth structural element from beneath thereof, said fifth structural element being secured into a sixth structural element from atop thereof, and said sixth structural element being the means for accepting fluid and functionally connected to a means for providing source fluid;

said third structural element being the upper portion and the fifth structural element being the lower portion of a functionally single continuous element;

in said nipple housing there being a first diameter restricting means formed by at least one of second structural element and third structural element, and a second diameter restricting means which is formed by at least one of said fourth structural element and said fifth structural element;

said fourth structural element having a hole present therein positioned to directly contact the source fluid, said hole having a back-flow preventing plug removably present therewithin;

said rod means being of substantially one relatively small diameter over the majority of its length, but having a substantially abrupt larger diameter near its lower aspect, said substantially abrupt larger diameter portion having upper and lower surfaces, said upper surface being positioned in said nipple housing so that it contacts a lower seal means caused to be present at said second diameter restricting means, an upper surface of the lower seal means being secured against said second diameter restricting means which is formed by at least one of the second structural element and the third structural element;

the substantially relatively small diameter end of said rod means extending out of said cup and being accessible for application of orientation changing pressure thereto;

a spring element being present between said lower surface of said substantially abrupt larger diameter and said back-flow preventing plug, said spring element serving to maintain said contact between the upper surface of said substantially abrupt larger diameter of said rod means and a lower surface of said lower seal means, and simultaneously to maintain source fluid flow preventing position maintaining pressure on the back-flow preventing plug;

said rod means being normally oriented to prevent forward-flow of source fluid past said lower seal means, but being at least minimally movable within said first structural element through which it projects so as to assume a position which allows a flow path to open between the upper surface of said substantially abrupt larger diameter of said rod means and said lower surface of said lower seal means through which a flow path of said source fluid can flow and be ejected laterally through laterally oriented holes in said third structural element;

said rod means also passing through an upper seal means present at said first diameter restricting means, which said upper seal means prevents substantially all said source fluid from passing therethrough;

said upper seal means being maintained in said first diameter restricting means formed by at least one of the second structural element and the third structural element;

such that in use when the portion of said substantially relatively small diameter end of said rod means which extends out of said cup is caused to be moved from its normal orientation, said source fluid proceeds past said lower seal means, and exits substantially laterally into said cup;

said system for providing fluid flow into a cup having elements present therein to direct ejected fluid at the point of its ejection through said laterally oriented holes in the third structural element,

said system distinguished in that, said restriction element frame is present at least partially within said cup and in a substantially vertically projecting plane which substantially contains said rod means and substantially bisects said cup laterally viewed from above, said restriction element frame being a continuation of the first structural element,

said fluid is ejected into said cup in a substantially laterally oriented direction, through each of said laterally oriented holes along a locus selected from the group consisting of; radially so as to directly approach a substantially vertically projecting cup side, and non-radially so that it approaches at an angle to a substantially vertically projecting cup side; and wherein the cup has an inner bottom surface selected from the group consisting of, substantially flat, which the substantially vertically projecting sides meet at a substantially ninety degree angle, and is concave upward; said cup inner bottom surface being at a location selected from the group consisting of; even with the fluid being ejected into said cup in a substantially laterally oriented direction; and vertically above the fluid being ejected into said cup in a substantially oriented direction.

Claim 32 is to read as follows:

Claim 32      A system for providing fluid to a cup,

    said cup, as presented in side elevation, having a bottom, a substantially open top and substantially vertically projecting sides, said system further comprising means for accepting fluid projecting through the bottom of said cup, and means for ejecting said fluid into said cup;

    wherein said means for accepting fluid is incorporated in a nipple housing which further comprises a rod means situated therewithin such that an annular space is present between said rod means and said nipple housing, said rod means being substantially vertically projecting and accessible from atop said cup and functionally incorporated into said means for accepting fluid

such that movement of said rod means out of said substantially vertically projecting orientation, causes said means for accepting fluid to enter into said cup via said means for ejecting said fluid;

in which said annular space between said nipple housing and said rod means is smaller at its top than it is therebeneath, said annular space having an unrestrained float therewithin, such that if fluid accumulates within said annular space, said unrestrained flat freely rises in said annular space and is adapted to automatically restrict rod means motion,

said float having a central bore and said rod means extending entirely through said bore, said float having an upper end having a smaller diameter than that of a lower end of said float.

*Reasons for Allowance*

2. The following is an examiner's statement of reasons for allowance: the limitations of "...said restriction element frame comprising two sides angled and extending upwardly in opposite directions out of said cup, and a horizontal element disposed entirely outside said cup, extending between and coupling the two angled sides to form an inverted triangular shape enclosing an open space therebetween, said rod means extending outwardly from the cup and into the enclosed open space of the restriction element frame..." in claims 1, 15 and 25 and the limitations of "...said flat having a central bore and said rod means extending entirely through said bore, said float having an upper end having a smaller diameter than that of a lower end of said float..." in claims 1 and 32 are not found in the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Parsley whose telephone number is (571) 272-6890. The examiner can normally be reached on 9hr compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER

7/18/05